



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,178	08/21/2001	Brian J. Brown	S63.2N-5605-US05	8077
490 7590 07/29/2008 VIDAS, ARRETT & STEINKRAUS, P.A. SUITE 400, 6640 SHADY OAK ROAD EDEN PRAIRIE, MN 55344				
EXAMINER				
PREBILIC, PAUL B				
ART UNIT		PAPER NUMBER		
3774				
MAIL DATE		DELIVERY MODE		
07/29/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/934,178

**Applicant(s)**

BROWN ET AL.

**Examiner**

Paul B. Prebille

**Art Unit**

3774

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9, 10, 13-22, 25, 26 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9, 10, 13-22, 25, 26 and 28-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Objections***

Claims 17-20, 29, and 30 are objected to because of the following informalities: on line 11 of claim 17, the language "the distal portion" lacks clear antecedent basis. The Examiner suggests changing this language to ---the other portion--- in order to overcome this objection. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

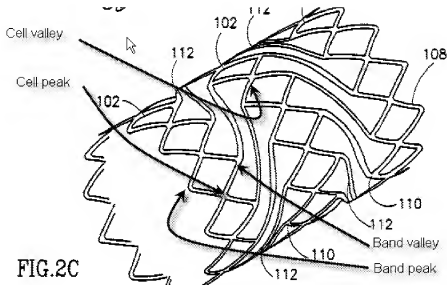
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17, 20, 29 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Pinchasik et al (US 5,449,373).

Pinchasik meets the claim language where the peaks of adjacent ends of the cell are clearly offset; see Figures 2A to 2C. Each cell has two cross supports between a cell peak or valley and a band peak or valley. There are serpentine band peaks and valleys and there are cell peaks and valleys; see the figure below.



With regard to claim 20, the shorter bands as claimed are those bands between adjacent diamonds of adjacent serpentine bands; see Figure 2C.

Claims 17, 20, 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated over Palmaz et al (US 5,102,417). Palmaz meets the claim language where the annular elements as claimed are met by the prostheses or grafts (70) of Palmaz and the connectors as claimed are the connectors (100) or spiral members (102) of Palmaz; see Figures 7 to 10 and column 11, line 35 et seq. The cell peaks and valleys are different from the band peaks and valleys as explained in the Pinchasik rejection *supra*.

### **Claim Rejections - 35 USC § 103**

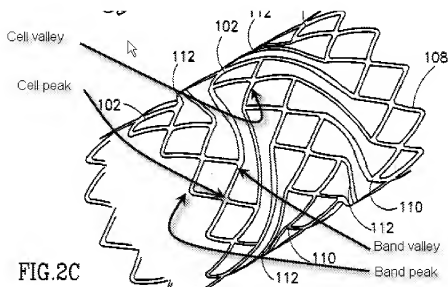
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3774

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 25-26 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Pinchasik et al (US 5,449,373) in view of Kleshinski (US 5,902,317). Pinchasik meets the claim language where the peaks of adjacent ends of the cell are clearly offset; see Figures 2A to 2C. There are serpentine band peaks and valleys and there are cell peaks and valleys; see the figure below.



But Pinchasik fails to disclose a “structure” that provides the stent with less compression resistance than provided by the structure of a different annular element. However, Kleshinski teaches that it was known to put fingers on end cells in order to make them less compression resistant than other cells; see Figures 1 to 4 and column 4, lines 3-20. Therefore, it is the Examiner’s position that it would have been obvious to put fingers on the ends of the segments for the same reasons that Kleshinski does the same.

Claims 16, 25-26, and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Palmaz et al (US 5,102,417) in view of Kleshinski (US 5,902,317). Palmaz meets the claim language where the annular elements as claimed are met by the prostheses or grafts (70) of Palmaz and the connectors as claimed are the connectors (100) or spiral members (102) of Palmaz; see Figures 7 to 10 and column 11, line 35 et seq. However, Palmaz fails to disclose a "structure" that provides the stent with less compression resistance than provided by the structure of a different annular element. However, Kleshinski teaches that it was known to put fingers on end cells in order to make them less compression resistant than other cells; see Figures 1 to 4 and column 4, lines 3-20. Therefore, it is the Examiner's position that it would have been obvious to put fingers on the ends of the segments of Palmaz for the same reasons that Kleshinski does the same.

Claims 9, 10, 13, 21, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Israel (US 5,733,303) in view of Pinchasik (US 5,449,372) and Kleshinski (US 5,902,317). Present claim 9 has a scope narrower than former claim 23 because the stent now has a plurality of cells (see line 1) and each cell of the stent must have connectors forming part thereof based upon the last subparagraph of the claim and according to the Applicant's arguments filed with the present amendment. Israel discloses a flexible expandable stent that has annular elements called meander patterns (11) and (12) and connecting members called loops (18) and (20); see Figures 1 to 4 and column 2, line 45 to column 3, line 62. Although the stent can be bent to match the curvature of the blood vessel (see Figure 3), it is not clear that the first end

can be circumferentially offset from the second end. Furthermore, although the end annular elements would be less crush resistance than the middle annular elements due to great connector support, it is not clear that "the structure" of the end annular elements would have less compression resistance than the middle elements.

Pinchasik teaches that circumferentially offset connectors were known where similar meander pattern stents were made and as an alternative to circumferentially aligned cell ends; see Figure 2C and compare it to Figure 3C. Therefore, it is the Examiner's position that it would have been obvious to circumferentially offset the cell ends of Israel for the same reasons that Pinchasik does the same or in order to provide better coverage between stent segments.

Kleshinski teaches that it was known to have end elements with less compression resistance by putting fingers on end cells in order to make them less compression resistant than other cells; see Figures 1 to 4 and column 4, lines 3-20. Therefore, it is the Examiner's position that it would have been considered prima facie obvious to an ordinary artisan to put fingers on the end segments of Pinchasik for the same reasons that Kleshinski does the same.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Israel (US 5,733,303), Pinchasik et al (US 5,449,373) and Kleshinski (US 5,902,317) as applied to claims 9, 10, 13, 21, 22, and 24 above, and further in view of Lau et al (US 5,514,154). Israel discloses making the stents out of metal (see column 4, lines 26-31) but not of Nitinol or shape memory materials as claimed. However, Lau teaches that it was known to make similar stents out of Nitinol (Nitinol is a NiTi alloy with

shape memory properties) or shape memory material as an alternative to balloon expandable stents; see column 2, lines 12-56 and the paragraph bridging columns 6 and 7. Therefore, it is the Examiner's position that it would have been obvious to make the stents of Israel out of Nitinol or shape memory material for the same reasons that Lau teaches substituting the same.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palmaz (US 5,102,417) or Pinchasik et al (US 5,449,373) as applied against claim 17 above, and further in view of Lau et al (US 5,514,154). Palmaz or Pinchasik discloses making the stents out of various materials but not of Nitinol or shape memory materials as claimed. However, Lau teaches that it was known to make similar stents out of Nitinol (Nitinol is a NiTi alloy with shape memory properties) or shape memory material as an alternative to balloon expandable stents; see column 2, lines 12-56 and the paragraph bridging columns 6 and 7. Therefore, it is the Examiner's position that it would have been obvious to make the stents of Palmaz or Pinchasik out of Nitinol or shape memory material for the same reasons that Lau teaches substituting the same.

### ***Response to Arguments***

Applicant's arguments filed April 7, 2008 have been fully considered but they are not persuasive with respect to all the rejections of record.

In response to the argument that each cell must have connectors to define them, the Examiner has modified the rejection statement to address this argument. In particular, there is nothing in the claim language that precludes the cells from having cross supports.



Furthermore, giving the claim language the narrower interpretation that cross supports are precluded within cells, the Examiner has applied a new ground of rejection utilizing Israel, Pinchasik, and Kleshinski. Since the claimed features distinguishing Israel from the claimed invention were known to the art at the time the invention was made, the Examiner asserts that the claimed invention is clearly *prima facie* obvious.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Applicant should specifically point out the support for any amendments made to the disclosure, including the claims (MPEP 714.02 and 2163.06). Due to the procedure outlined in MPEP 2163.06 for interpreting claims, it is noted that other art may be applicable under 35 USC 102 or 35 USC 103(a) once the aforementioned issue(s) is/are addressed.

Art Unit: 3774

Applicant is respectfully requested to provide a list of all copending applications that set forth similar subject matter to the present claims. A copy of such copending claims is respectfully requested in response to this Office action if the application is not stored in image format (i.e. the IFW system) or published.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Paul B. Prebilic whose telephone number is (571) 272-4758. He can normally be reached on 6:30-5:00 M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Paul Prebilic/  
Paul Prebilic  
Primary Examiner  
Art Unit 3774